

Atty. Dkt. No. 036222-0212

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

Applicant: Albert R. Deisseroth and Lixin Zhang

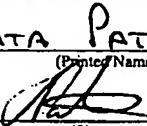
Title: ADENOVIRAL VECTOR VACCINE

Appl. No.: 10/534,605

Filing Date: 05/11/2005

Examiner:

Art Unit:

CERTIFICATE OF MAILING	
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<u>Anita Patel</u> <small>(Printed Name)</small>  <small>(Signature)</small> <u>July 19 2005</u> <small>(Date of Deposit)</small>	

Mail Stop Amendment-IDS
 Commissioner for Patents
 P.O. Box 1450
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Sir:

Submitted herewith on Form PTO/SB/08 is a listing of documents known to Applicants in order to comply with Applicants' duty of disclosure pursuant to 37 CFR §1.56.

A copy of each non-U.S. patent document and each non-patent document is being submitted to comply with the provisions of 37 CFR §1.97 and §1.98.

The submission of any document herewith, which is not a statutory bar, is not intended as an admission that such document constitutes prior art against the claims of the present application or that such document is considered material to patentability as defined in 37 CFR §1.56(b). Applicants do not waive any rights to take any action which would be appropriate to antedate or otherwise remove as a competent reference any document which is determined to be a *prima facie* art reference against the claims of the present application.

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TIMING OF THE DISCLOSURE

The listed documents are being submitted in compliance with 37 CFR §1.97(b), before the mailing date of the first Office Action on the merits.

RELEVANCE OF EACH DOCUMENT

All of the documents are in English.

Applicants respectfully request that each listed document be considered by the Examiner and be made of record in the present application and that an initialed copy of Form PTO/SB/08 be returned in accordance with MPEP §609.

The Commissioner is hereby authorized to charge any additional fees which may be required regarding this application under 37 CFR §§ 1.16-1.17, or credit any overpayment, to Deposit Account No. 50-0872. Should no proper payment be enclosed herewith, as by a check being in the wrong amount, unsigned, post-dated, otherwise improper or informal or even entirely missing, the Commissioner is authorized to charge the unpaid amount to Deposit Account No. 50-0872.

Respectfully submitted,

Date July 19, 2005

FOLEY & LARDNER LLP
Customer Number: 30542
Telephone: (858) 847-6722
Facsimile: (858) 792-6773

By Barry Wilson

Barry S. Wilson
Attorney for Applicant
Registration No. 39,431

10534605-GAU-1644

MODIFIED PTO/SB/08 (08-00)

Approved for use through 10/31/2002. OMB 0651-0031

U.S. Patent and Trademark Office: U.S. DEPARTMENT OF COMMERCE

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<p style="text-align: center;">Substitute for form 1449B/PTO</p> <p>INFORMATION DISCLOSURE STATEMENT BY APPLICANT</p> <p>AUG 06 2005 U.S. PATENT AND TRADEMARK OFFICE</p> <p>(use as many sheets as necessary)</p>				Complete if Known											
		<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 30%;">Application Number</td> <td>10/534,605</td> </tr> <tr> <td>Filing Date</td> <td>May 11, 2005</td> </tr> <tr> <td>First Named Inventor</td> <td>Albert B. Deisseroth</td> </tr> <tr> <td>Group Art Unit</td> <td></td> </tr> <tr> <td>Examiner Name</td> <td></td> </tr> </table>		Application Number	10/534,605	Filing Date	May 11, 2005	First Named Inventor	Albert B. Deisseroth	Group Art Unit		Examiner Name			
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Sheet 1 of 9		Attorney Docket Number		036222-0212											

U.S. PATENT DOCUMENTS						
Examiner Initials*	Cite No. ¹	U.S. Patent Document		Name of Patentee or Applicant of Cited Document	Date of Publication of Cited Document MM-DD-YYYY	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
		Number	Kind Code ² (if known)			
A1	2003/0176377			Xiang, et al.	09-18-2003	
A2	4,161,519			Talwar	07-17-1979	
A3	4,608,251			Mia	08-26-1986	
A4	5,658,785			Johnson, Phillip	08/19/1997	
A5	5,849,522			Fleckenstein, et al.	12/15/1998	
A6	5,849,876			Linsley, et al.	12/15/1998	
A7	5,874,085			Mond, et al.	02/23/1999	
A8	5,928,913			Efstathiou, et al.	07/27/1999	
A9	5,962,406			Armitage, et al.	10/05/1999	
A10	6,017,527			Maraskovsky, et al.	01/25/2000	
A11	6,040,174			Imler, et al.	03/21/2000	
A12	6,087,329			Armitage, et al.	07/11/2000	
A13	6,110,744			Fang, et al.	08/29/2000	
A14	6,133,029			Gruber, et al.	10/17/2000	
A15	6,147,055			Hobart, et al.	11/14/2000	
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A23	6,497,876			Maraskovsky, et al.	12/24/2002	
A24	6,500,641			Chen, et al.	12/31/2002	
A25	6,566,128			Graham, et al.	05/20/2003	
A26	6,794,188			Barsov	09-21-2004	

FOREIGN PATENT DOCUMENTS						
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		Office ³	Number ⁴			
A27		WO 2004/044176		Deisseroth et al.	05-27-2004	
A28		WO 96/11279		The Government of the United States of America	04-18-1996	
A29		WO 98/17799		The Trustees of the University of Pennsylvania	04-30-1998	

Examiner Signature	/Phillip Gambel/	Date Considered	07/06/2010
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Substitute for form 1449B/PTO INFORMATION DISCLOSURE STATEMENT BY APPLICANT <i>(use as many sheets as necessary)</i>				Complete If Known	
Sheet	2	of	9	Application Number	10/534,605
				Filing Date	May 11, 2005
				First Named Inventor	Albert B. Deisseroth
				Group Art Unit	
				Examiner Name	
				Attorney Docket Number	036222-0212

NON PATENT LITERATURE DOCUMENTS

Examiner Initials*	Cite No. ¹	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.) date, page(s), volume-issue number(s), publisher, city and/or country where published.	T ²
	A30	ALLISON and Byars, "Immunological Adjuvants and their mode of action." (in <u>Vaccines: New Approaches to Immunological Problems</u> , R. Ellis ed., Chapter 19), pp. 431-449.	
	A31	ANDRIANIFAHANANA, et al., "Mucin (MUC) Gene Expression in Human Pancreatic Adenocarcinoma and Chronic Pancreatitis: A Potential Role of MUC4 as a Tumor Marker of Diagnostic Significance," <i>Clin Cancer Res.</i> 7:4033-4040 (2001)	
	A32	ARAI, et al., "Design of the linkers which effectively separate domains of a bifunctional fusion protein," <i>Protein Engineering</i> , 14(8):529-532 (2001)	
	A33	BARUCH, et al., "The Breast Cancer-associated MUC1 Gene Generates Both a Receptor and Its Cognate Binding Protein," <i>Cancer Res.</i> , 59:1552-1561 (1999)	
	A34	BIECHE, et al., "A gene dosage effect is responsible for high overexpression of the MUC1 gene observed in human breast tumors," <i>Cancer Genet. Cytogenet.</i> 98:75-80 (1997)	
	A35	Bell et al., "Dendritic cells." (in <u>Advances in Immunology</u> , edited by Frank J. Dixon, Academic Press, Volume 72), 255-324, 1999.	
	A36	Broder et al., Recombinant adenovirus-transduced dendritic cell immunization in a murine model of central nervous system tumor <i>Neurosurg Focus</i> 9:1-8, 2000.	
	A37	BYARS, et al., "Adjuvant formulation for use in vaccines to elicit both cell-mediated and humoral immunity," <i>Vaccine</i> 5:223-228 (1987)	
	A38	CHEN, et al., Linkage of CD40L to a self-tumor antigen enhances the antitumor immune responses of dendritic cell-based treatment. <i>Cancer Immunology Immunother.</i> 51(6) :341-348, 2002	
	A39	CHOUDHURY, et al., Dendritic cells derived in vitro from acute myelogenous leukemia cells stimulate analogous, antileukemic T-cell responses. <i>Blood</i> ; 93(3) : 780-786, 1999.	
	A40	Crook et al., Continued expression of HPV-16 E7 protein is required for maintenance of the transformed phenotype of cells co-transformed by HPV-16 plus EJ-ras. <i>EMBO J.</i> 8: 513-519, 1989.	
	A41	DAKAPPAGARI et al.; "Chimeric multi-human epidermal growth factor receptor-2 B cell epitope peptide vaccine mediates superior antitumor responses," <i>J Immuno.</i> 170(8):4242-4253 (2003)	

Examiner Signature	/Phillip Gabel/	Date Considered	07/06/2010
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Sheet 3 of 9					

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Examiner Initials*	Cite No. ¹	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.) date, page(s), volume-issue number(s), publisher, city and/or country where published.	T ²
	A42	Dhopakar, et al. Rapid generation of broad T-cell immunity in humans after a single injection of mature dendritic cells. <i>J Clin Invest.</i> 104: 173-180, 1999.	
	A43	ECK and TURKA, Generation of protective immunity against an immunogenic carcinoma requires CD40/CD40L and B7/CD28 interactions but not CD4+ T cells. <i>Cancer Immunology Immunother.</i> 48:336-341, 1999.	
	A44	ENGELMANN, et al., Identification and topology of variant sequences within individual repeat domains of the human epithelial tumor mucin MUC1. <i>J. Biol. Chem.</i> 276:27764-27769 , 2001.	
	A45	FILIPE, MI, "Mucins and gastrointestinal malignancy. A new approach to the interpretation of biopsies," <i>Acta Med Port</i> 1:351-365 (1979)	
	A46	FILIPE, MI, "Mucins in the human gastrointestinal epithelium: a review," <i>Invest Cell Pathol</i> 2:195-216 (1979)	
	A47	Fong L, et al. Dendritic cells injected via different routes induce immunity in cancer patients. <i>J Immunol.</i> 166: 4254-4259, 2001.	
	A48	FREUND, "The mode of action of immunologic adjuvants," <i>Adv. Tuberc. Res.</i> 7:130-148 (1956)	
	A49	GARCON et al., "Universal vaccine carrier. Liposomes that provide T-dependent help to weak antigens," <i>J. Immunol.</i> 146:3697 (1991)	
	A50	GENDLER S.J. et al, "Molecular cloning and expression of human tumor-associated polymorphic epithelial mucin," <i>J. Biol. Chem.</i> 265:15286-15293 (1990)	
	A51	GONG, et al., "Selection and characterization of MUC1-specific CD8+ cells from MUC1 transgenic mice immunized with dendritic-carcinoma fusion cells." <i>Immunology</i> , 101:316-324 (2000)	
	A52	GREENLEE, et al., "Cancer statistics, 2000," <i>Cancer J.</i> 50:7-33 (2000)	
	A53	Gunzer et al., Dendritic cells and tumor immunity. <i>Semin Immunol</i> 13:291-302, 2001.	
	A54	GUY, et al. "Expression of the neu protooncogene in the mammary epithelium of transgenic mice induces metastatic disease," <i>Proc. Natl. Acad. Sci. USA</i> 89:10578-10582 (1992)	

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	A55	HOLLINGSWORTH, et al., "Expression of MUC1, MUC2, MUC3, and MUC4 mucin mRNA in human pancreatic and intestinal tumor cell lines," <i>Int J Cancer</i> 57:198-203 (1994)	
	A56	Hsu et al. Vaccination of patients with B-cell lymphoma using autologous antigen-pulsed dendritic cells. <i>Nat Med.</i> 2: 52-58, 1996.	
	A57	JEANNON, et al. "Altered MUC1 and MUC2 glycoprotein expression in laryngeal cancer," <i>Otolaryngol Head Neck Surg.</i> 124:199-202 (2001)	
	A58	JOHNSON, et al., "Characterization of a Nontoxic Monophosphoryl Lipid A," <i>Rev. Infect. Dis.</i> 9:S512 (1987)	
	A59	KANEDA, "New Vector Innovation for Drug Delivery: Development of Fusogenic Non- Viral Particles," <i>Curr Drug Targets</i> 4(8):599-602 (2003)	
	A60	KIM, et al., "Aberrant expression of MUC5AC and MUC6 gastric mucins and sialyl Tn antigen in intraepithelial neoplasms of the pancreas," <i>Gastroenterology</i> 123:1052-1060 (2002)	
	A61	KONTANI, et al., "Modulation of MUC1 mucin as an escape mechanism of breast cancer cells from autologous cytotoxic T-lymphocytes," <i>Br. J. Cancer</i> 84:1258-1264 (2001)	
	A62	Kusuhsara et al., Killing of naive T cells by CD95L-transfected dendritic cells (DC): <i>In vivo</i> study using killer DC-DC hybrids and CD4(+) T cells from DO11.10 mice. <i>Eur J Immunol</i> 32:1035-1043, 2002.	
	A63	Lamikanra et al., Regression of established human papillomavirus type 16 (HPV-16) immortalized tumors <i>in vivo</i> by vaccinia viruses expressing different forms of HPV-16 E7 correlates with enhanced CD8(+) T-cell responses that home to the tumor site. <i>J Virol.</i> 75: 9654-9664, 2001.	
	A64	Larsson et al., A recombinant vaccinia virus based ELISPOT assay detects high frequencies of Pol-specific CD8 T cells in HIV-1-positive individuals. <i>AIDS</i> 13:767-777, 1999.	
	A65	Liu et al., Codon Modified Human Papillomavirus Type 16 E7 DNA Vaccine Enhances Cytotoxic T-Lymphocyte Induction and Anti-tumor Activity. <i>Virology</i> 15: 301-343, 2002.	

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	A66	Luft et al., IFN-alpha enhances CD40 ligand-mediated activation of immature monocyte-derived dendritic cells. <i>Int Immunol</i> 14:367-380, 2002		
	A67	Markowicz and Engleman, Granulocyte-macrophage colony-stimulating factor promotes differentiation and survival of human peripheral blood dendritic cells <i>in vitro</i> . <i>J Clin Invest</i> 85: 955-961, 1990.		
	A68	MOREIN, et al., "Iscom, a novel structure for antigenic presentation of membrane proteins from enveloped viruses," <i>Nature</i> 308:457 (1984)		
	A69	MULLER, et al., "Single-step induction of mammary adenocarcinoma in transgenic mice bearing the activated c-neu oncogene," <i>Cell</i> 54(1):105-115 (1988)		
	A70	Murphy GP, et al. Infusion of dendritic cells pulsed with HLA-A2-specific prostate-specific membrane antigen peptides: a phase II prostate cancer vaccine trial involving patients with hormone-refractory metastatic disease. <i>Prostate</i> 38: 73-78, 1999.		
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	A72	NGUYEN, et al., "Membrane-bound (MUC1) and secretory (MUC2, MUC3, and MUC4) mucin gene expression in human lung cancer," <i>Tumor Biol</i> 17(3):176-192 (1996)		

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	A73	O'HAGAN, et al., "Biodegradable microparticles as controlled release antigen delivery systems," <i>Immunology</i> 73:239-242 (1991)		
	A74	Paglia P, et al. Murine dendritic cells loaded <i>in vitro</i> with soluble protein prime cytotoxic T lymphocytes against tumor antigen <i>in vivo</i> (see comments). <i>J Exp Med</i> 183: 317-322, 1996.		
	A75	Palucka and Banchereau, Dendritic cells: A link between innate and adaptive immunity. <i>J Clin Immunol</i> . 19:12-25, 1999.		
	A76	REDMOND, et al., "Rotavirus particles function as immunological carriers for the delivery of peptides from infectious agents and endogenous proteins," <i>Mol. Immunol.</i> 28:269 (1991)		
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				Filing Date	May 11, 2005
				First Named Inventor	Albert B. Deisseroth
				Group Art Unit	
				Examiner Name	
(use as many sheets as necessary)				Attorney Docket Number	036222-0212
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	A81	Rininsland et al., Granzyme B ELISPOT assay for ex vivo measurements of T cell immunity. J Immunol Methods 240:143-155, 2000.	
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	A88	Timmerman and Levy, Dendritic cell vaccines for cancer immunotherapy. Annual Rev Med. 50: 507-529, 1999.	

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	A97	Zitvogel L, et al. Therapy of murine tumors with tumor peptide-pulsed dendritic cells: dependence on T cells, B7 co-stimulation, and T helper cell 1-associated cytokines. J Exp Med. 183: 87-97, 1996.	
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